'Eugenics is the science which deals with all influences that improve the inborn qualities of a race; also with those that develop them to the utmost advantage.'—SIR FRANCIS GALTON (1904)

The Eugenics Review

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NOTES OF THE QUARTER

THE PRESIDENCY

IN PARAGRAPH 27 of the *Society's* Articles of Association (1926) it is laid down that the "President shall retire at the Annual General Meeting of the Society in the third year after his appointment or re-appointment . . . but no person shall hold the office of President of the Society for more than six years in succession"—though that rule had to be broken in war-time. So it has come about that on May 20th, 1959 Sir Charles Darwin ceased to be our President after six years of noble service. He lays down his office with the *Society* much in his debt for the wisdom and kindliness of his guidance. He has spent much time and trouble upon it, and the *Society's* Council wishes the whole body of Fellows and Members to be associated together in thanking him.

The list of Presidents, who have guided the *Society* through its first half century, is a distinguished one:

Sir Francis Galton, F.R.S., O.M. (Hon. President)	1907–11
Sir James Crichton-Browne, M.D., D.Sc., F.R.S.	1908–09
Montague Crackanthorpe, K.C.	1909–11
Major Leonard Darwin, Sc.D.	1911–29
Sir Bernard Mallet, K.C.B.	1929–33
Sir Humphry Rolleston, Bt., G.C.V.O., K.C.B., M.D.	1933–35
The Lord Horder, K.C.V.O., M.D., F.R.C.P.	1935–49
Sir Alexander Carr-Saunders, K.B.E., M.A., LL.D.	1949–53
Sir Charles Galton Darwin, K.B.E., M.C., Sc.D., F.R.S.	1953–59

So much for the past: what of the future? It is a most happy circumstance now to report that, as a century ago, the name of Huxley becomes again associated with that of Darwin. Sir Julian Huxley, F.R.S. assumed office as the *Society's* tenth President as from the Annual General Meeting. The *Society* is lucky indeed to have his guidance, being fully conscious of the width of his interests and the extent of his varied commitments. His reputation and the power of his pen are assets of immense value in the furtherance of the *Society's* aims.

SIR CHARLES DARWIN

At the Annual General Meeting of the Eugenics Society on May 20th, 1959, *Dr. C. P. Blacker said:* "When, six years ago, Sir Charles Darwin was approached about the possibility of his undertaking the presidency of the *Society*, he had certain misgivings. These were mainly connected with the fact that his book, *The Next Million Years*, had just been published and, before he was nominated, he wanted the Council to have an opportunity of looking at it. The book duly appeared; the Council looked at it; their wish that he should become president was unchanged.

Then Sir Charles had certain ideas of his own about the rôle of president. The president,

he thought, should not be a mere figurehead; he should take an active part in the *Society's* affairs. This, I need hardly say, suited us well. But it imposed on the secretariat the task of giving him the right amount to do—not too much nor too little. In fact, we made considerable demands on his time. But throughout, the understanding was that he should tell us if we were asking too much. The arrangement worked well. I will mention three things which our retiring president did. They stand out in my memory from many others.

First, he represented the *Society* at the international population conference held in Rome during September 1954. He there made a useful contribution to the public discussion of a paper on qualitative aspects of population; and I need not tell you that many delegates from other countries counted it an honour to shake hands with Sir Darwin, as he was hailed by an enthusiastic Japanese. He was treated as a guest of honour by Professor Gedda when the latter escorted quite a large party through his chromium-plated institute for the study of twins. The *Society* undoubtedly gained in prestige by Sir Charles's presence in Rome.

Then, in 1955, Sir Charles gave a paper on the promising families project to the International Conference of Educational Associations which was followed by a lively discussion. This project held from the start a rather special interest for our president.

Lastly, Sir Charles was almost wholly responsible for the fourth revision of our Statement of Objects which appeared in 1957. A considerable labour was here involved for which the Council was most grateful.

It is good that Sir Charles has consented to retain an active contact with the *Society* by allowing us to elect him a member of the Council. So we are, happily, not in any sense saying goodbye to him. All the same, I wish he were here to-day (and not in America) in order that we could express to him personally our appreciation of what he has done for the *Society* in the last six years."

MR. GEOFFREY ELEY

Dr. C. P. Blacker continued: "I must also say something about Mr. Geoffrey Eley who feels that he must retire from the Finance Committee, of which he became a member in 1945; he followed Mr. Clinton Chance as the *Society's* treasurer, in 1946. But when outside pressures increased he resigned the treasurership in 1954. During the last thirteen years the *Society* has benefited from Mr. Eley's wide financial experience. And not only from that. Many are the times that, in private talks, I have discussed with Mr. Eley problems of policy. The powers of judgment and shrewd assessment which, since the war, have rocketed him to the summit of the world of high finance and management were in evidence when he turned his mind to the *Society's* non-financial problems. We owe Mr. Eley a great debt and I hope it will be possible for us to retain an indirect connection with him which could later be strengthened again if other pressures relax and leave him more leisure".

A MAJOR ADVANCE IN HUMAN GENETICS

THIS YEAR has seen a major advance in human genetics. In the past many human illnesses and defects have been recognized as due to point mutations, that is changes at a single gene locus on a chromosome. There has always been a possibility that some of the more severe conditions might be due to larger chromosomal changes, such as the loss of part of a chromosome or even the loss or addition of a whole chromosome. But until recently there has been no way of investigating this. Striking advances have now been made in the techniques of preparing cells so that the chromosomes can be studied microscopically.

The first discovery from these new developments was the demonstration in 1956[1, 2] that man has forty-six and not forty-eight chromosomes. The second discovery was the recognition that two puzzling human abnormalities are due to the presence of an extra chromosome and another abnormality was due to the loss of a chromosome. It had been thought that the presence of an extra chromosome or the loss of a chromosome would result in so much interference with development that the affected embryo would die in the uterus. It is interesting,

therefore, that in these three examples of chromosome abnormality the chromosome involved is small and so probably contains few genes.

The first of these abnormalities is responsible for the specific type of maldevelopment with mental defect known as mongolism. The clinical condition has been recognized for nearly a century, but its cause was unknown. It was known that identical twins were often, perhaps always, both affected, that brothers and sisters were rarely affected and that the condition occurred more often as the mother grew older. Recently it has become clear that mongols can transmit the condition when, as only rarely happens, they have children; two well authenticated examples are known, as well as two examples of mongols giving birth to normal children. Some genetic basis was therefore probable, and all attempts to find an environmental cause had failed. Workers in the Galton Laboratory several years ago attempted to examine the chromosomes of a mongol, but technical methods available were inadequate at that time. This year workers in France,[3] and soon after in this country,[4, 5] using the new technical methods, have shown that mongols have an extra chromosome, forty-seven in all: one of the smallest of the chromosomes is present not, as it should be, in duplicate, but in triplicate. It is clear that this extra chromosome is the basis of mongolism and it explains all that was known about mongolism, except perhaps the increasing incidence with increasing maternal age.

The other two conditions now known to be due to chromosome abnormalities are Turner's syndrome and Klinefelter's syndrome. Individuals with Turner's syndrome are externally female, but do not develop secondary sex characteristics, rarely menstruate, and are perhaps always sterile. They not uncommonly have malformations of the aorta, and are often deaf and mentally defective. The chromosome number of at least some cells in these women is 45.[6] They are one chromosome short, and it is probable that they have only one sex chromosome, an X chromosome. Accordingly they are genetically neither female, XX, nor male XY, but just X. Individuals with Klinefelter's syndrome, on the other hand, have forty-eight chromosomes, and have three sex-chromosomes, two X's and a Y.[7] These are externally male, but often somewhat feminine in build, and they are usually, perhaps always, sterile: many of them also are mentally retarded.

Obviously there will be new developments in this field. It is perhaps unlikely that many more conditions will be found where a whole chromosome is involved, but there may be several conditions which are due to loss of part of a chromosome. Some of these too, unlike gene mutations, may prove to be recognizable by direct inspection of the chromosomes.

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RATS, MAN, AND THE WELFARE STATE*

Dr. J. M. Tanner writes: The Norway rat has in the past supported, some say, more than its fair load of human psychology, but recently it has served to throw light on other problems of man as well. Dr. Curt P. Richter of Johns Hopkins University has for many years studied the differences in anatomy, physiology and behaviour between the domesticated Norway rats, bred in his laboratory for the last thirty-six years, and wild rats trapped in the alleys of Baltimore. He has used this comparison to draw attention to what may be the effects of domestication, and of the super-domestication of the Welfare State, on man.

In the domesticated rat, which has arisen from exactly the same stock as the present wild one, the adrenals are small and react to a lesser degree of stress; the thyroid is less active; the total body size is less; puberty occurs earlier and so does death. The domesticated strain live seldom beyond three years, whereas wild

* *Amer. Psychol.*, 1959, *14*, 18-28.

rats often achieve five. The domestic strain succumbs much more easily to poisons and to rat diseases. When placed in pairs in a cage and subjected to mild electric shock wild rats attack each other, while domesticated ones do not. Wild rats are, of course, fiercer and more difficult to handle and it is only a rare one who mates and nurses its young in the laboratory; the slightest unexpected sound will cause the wild rat mother to kill and eat her litter. Dr. Richter attributes these differences in behaviour to continual selection for tameness in the domesticated stock. Experimenters have been able to breed in captivity only from the naturally tamer members of the colony.

Domesticated rats are like Welfare State humans in that their "services" are laid on. They no longer have to hunt for their food, mates, nesting material, nor to fight for their territory. Thus, instinctive behaviour which would be an advantage in a wild rat may be selected against in the laboratory. Perhaps the same may be true of man. At least Dr. Richter, calling attention to the increasing load of chronic diseases which we carry in our culture, asks that the U.S. Federal Government should set up a permanent Board or Commission composed of physicians, biologists, psychologists and sociologists, well versed in genetics, to advise legislators about the possible biological effects of their actions. Like many of us he is appalled by the lack of even elementary knowledge of human biology shown by those who play a major part in most Governments. For those who largely control the short-term destiny of the human, Darwinism has yet to come.

GENETIC HAZARDS

THE PUBLIC CONTINUES to be regaled with figures and estimates of the twin hazards of nuclear fall-out and radiological treatment. It is no easy matter to obtain a perspective that is sensible. *The Times* of May 6th, 1959 tells us: "Figures given to a special joint subcommittee of Congress today by the Atomic Energy Commission showed that in the past two years radioactive fall-out from nuclear tests had been double the recommended safety level". Dr. Dunham, director of the biological division of A.E.C., estimated that "Genetic effects during the next thirty years would average not more than twenty persons born each year with tangible genetic defects, still-births, and the like".

Over the signature of Lord Adrian has recently been issued *Radiological Hazards to Patients*,* which is an interim report of a Committee set up under his chairmanship by the Minister of Health in 1956. The Committee's chief conclusions are summarized in the Ministry's leaflet (H.M. (59) 48) of May 5th, 1959. "The Committee have completed a survey of practice in mass miniature radiography and concluded that its benefits far outweigh any genetic and somatic hazards there might be to the general adult population from the small amount of radiation involved. They recognize, however, that everything possible must be done to eliminate unnecessary radiation. . . . The Committee refer particularly to the undesirability of using mass miniature radiography for children."

A sad commentary it is upon humanity that as our numbers proliferate, through the benevolent spread of death control, simultaneously do new hazards appear, both in the present lives of individuals and, far more seriously, in future genetic defects.

It is regrettable that the public awakening to human genetics should be through the talk about, and the reality of, these man-made defects. Here we have a curious reciprocal of negative eugenics, the actual manufacture of what we do not want, let alone the elimination of what we already have. Unless we can seize the opportunity, here is one more stumbling block to delay the focusing of public attention on the positive aspects of eugenics—the recognition of the promising, the adequate education of our most able young people, and the provision of social circumstances such that they may progressively give rise to larger proportions of future generations.

AMERICAN ATTITUDES TO HUMAN GENETICS AND EUGENICS

AMRAM SCHEINFELD, an American journalist, wrote a best seller some years ago with the title *You and Heredity*. The book was written more

* London, 1959. H.M.S.O. Pp. 22. Price 1s. 3d.

simply than any expert would have written it, and yet those who read it carefully will have learned much about human genetics.

In *Eugenics Quarterly* of September 1958, Mr. Scheinfeld has reviewed in engaging style the forces that are influencing the growth of the science of human genetics to-day. Many of these forces are hostile. He writes: "It is precisely because human genetics touches such sensitive spots in human lives that far from having been met merely by indifference, it has incited a host of adverse reactions, such as perhaps no other science has encountered." Part of this hostility was due to the over-enthusiasm of some earlier geneticists at the beginning of the century, who assumed too readily that defects and abnormalities in children, not obviously due to environmental agents, were inherited through some simple mechanism. Again many men and women, usually not themselves experts, brought popular discredit to the science by adopting genetic hypothesis to buttress their social and racial prejudices. Human genetics, too, was unfortunate in being born at a time of remarkable growth of "environmentalism". The rapid advances in health, learning and achievement of under-privileged races and classes appeared to make hereditary factors unimportant. For example, when so many leaders appear to be coming from "common stock" it is not easy for those who do not know about genetic segregation to understand that genetic endowment may nevertheless be a major factor in the development of leadership. Scheinfeld might have added, though perhaps he is too kindly, that the sociological sciences studying these environmental changes are new, and some sociologists and psycho-analysts are as immature in their simple environmentalism as were some of the earlier geneticists in overemphasising genetic predestination.

Mr. Scheinfeld also, however, sees a number of forces favourable to the development of human genetics. One is that there is a growing appreciation in the United States of the value of genetics in medicine. The public will be ready to accept this, and be prepared to endow research in medical genetics, as they come to realize that genetically determined diseases may, once the nature of the anomaly is known, be treatable. Another hopeful factor is that if the present trend of equalizing the social environment continues in the United States, the importance of genetic factors will increasingly stand out. Human geneticists, however, he thinks could do much to help themselves in their relation with the general public, if they would switch much of the attention from the inheritance of abnormal characters to that of normal characters. There has been little advance in our knowledge of the inheritance of facial features, stature and body-build over the past thirty years. The study of this inheritance of such normal variation is difficult, and may need teamwork from scientists trained in different disciplines, but it will, Mr. Scheinfeld thinks, gain popular acceptance for genetic and eugenic ideas.

EDUCATION AND AGE AT MARRIAGE IN THE U.S.A.

AS A COROLLARY to the "Pursuit of Excellence" in our January issue, it may be of interest to draw attention to a numerical feature of education in the United States of America to-day. These points are culled from a radio broadcast by Peter F. Drucker which was printed in *The Listener* of October 30th, 1958. He refers to "the emergence of the salaried middle class of professional, technical and managerial people, as the largest and fastest growing group in the American working population", and to "the rapid conversion of the entire American population into a highly schooled population".

Now, for the first time, the *majority* of all those at work in the United States are people who have passed through "high" school and have had at least twelve years of full-time schooling to the age of seventeen or eighteen. "Fifteen years hence, people without secondary school certificates will be scarce in the United States working population." The process is extending further, both through expediency and fashion: College enrolment is now increasing about twice as fast as population.

Here we are not concerned with the problems of assessing relative standards of education and of terminology (what is or is not a University?) as between different countries. But it may safely be assumed that in the United States, by and large, those who expose themselves to higher

education for a greater number of years include a large proportion of the most able people of the country. It is of considerable eugenic interest and importance then that Mr. Drucker can assert that:

> There is, for instance, a totally unexpected impact on the family, on its size and on marriage age. It used to be almost axiomatic that the more educated people are the later their marriage age and the smaller their family. In fact, a main concern of eugenics since the time of Sir Francis Galton a hundred years ago has always been the intelligent and educated do not reproduce themselves. But to-day in the United States it is the most highly educated who marry the earliest; a post-graduate student of twenty-four who is not married has become almost a rarity.

It may be that Mr. Drucker has been a little over-enthusiastic in his statements, for according to our latest statistical information the median age at marriage for students with four or more years at college is twenty-six for men and twenty-four for women as compared with twenty-four and a half for men and twenty-one for women for all persons of whatever educational level. These figures are given by Dr. Paul Glick in his book *American Families** and relate to marriages in urban areas of the United States during the period 1947-1954. It seems quite probable, however, that the current trend may be in the general direction indicated by Mr. Drucker.

THE FERTILITY OF DIFFERENT SECTIONS OF THE UNITED KINGDOM POPULATION

IN HIS 1951 CENSUS FERTILITY REPORT, the Registrar General for England and Wales has just published a feast of statistical information. Some of this information will be reproduced in future issues of the REVIEW in a new column headed "Demographic Facts", and need not be discussed here. The chapter of the Report which is of the most immediate interest to eugenists, however, is that which discusses differences in family size between specified groups among the population. The groups to which the Registrar General has paid special attention are as follows:

Social classes
Socio-economic groups
Industries
Geographical regions
Urban and rural areas and conurbations
Persons of different educational level
Occupied and unoccupied married women
Husbands and wives according to differences between their ages

The results are set out very fully and have been carefully standardized in order to allow for the fact that the groups compared have a varying composition according to such important basic factors as age and duration of marriage. They are succinctly discussed in nineteen pages of text including twelve tables of figures and two map diagrams.

The range of variation of fertility depends on the type of grouping in question and the characteristic studied. It is narrow for the last item on the above list—in other words it matters little in the end whether a husband is older or younger than his wife, and how large the difference in their ages is; the only tendency observed in the standardized results was for the size of the family to be slightly larger for the wives with younger husbands.

The most striking differences in fertility arise from the standardized comparison of the experience of gainfully occupied married women with that of all married women. The proportion of occupied married women who had borne a child during the twelve months preceding the census date was only one-sixth as large as the corresponding proportion for all married women, and the average number of children in the families of occupied married women were only 72 per cent of the general average family size. It must be remembered, however, that most married women are occupied only in the early years of their marriage and that when they later leave work their experience will tend to catch up with the general average. (There is no analysis of the completed fertility of married women—whether occupied or not—who have worked at some time since marriage or of married women who have never worked since marriage.)

The range of variation in family size (after the fullest standardization) by industry group is

*1957. Chapman and Hall.

from 87 (textiles) to 112 (agriculture and building), and by administrative region is from 92 (London area) to 124 (Merseyside); by type of district of residence it is only from 98 (extensively built-up) to 106 (rural).

SOCIAL AND EDUCATIONAL DIFFERENCES IN FERTILITY

ALTHOUGH SO WIDELY-SPREAD as to be rather insensitive, the Registrar General's five social classes are a valuable general pointer to differential fertility. It is particularly useful that data for these classes are available for every census from 1911 onwards, even though the composition and proportions of the classes has changed in the last fifty years and the type of data available for them varies somewhat from census to census. In very broad terms the categories are:

I Higher professional and managerial
II Lower professional and executive
III Skilled tradesmen
IV Semi-skilled workers
V Unskilled workers

from which it will be seen that the classification is based on the type of occupation followed.

The principal results revealed by the newly-published 1951 Census Fertility Volume for England and Wales are as follows; the figures are percentages of the national average, after standardization.

Social Class	*Family size of married women aged 45-49*	*Family size of all married in women under age 50*	*Proportion of married women under age 50 who bore a child the 12 months preceding the census date*
I	81	90	101
II	84	88	92
III	96	97	96
IV	113	111	108
V	126	120	119

The figures in the first column are similar to the differentials at earlier censuses, and as they relate only to the completed families of women in middle life this is not surprising. When the families of younger married women are included, as in the second column, the experience of social class I is much nearer to the general average, while if the children born to married women in the year ending on the census date are considered —as in the third column—the experience of social class I is seen to be slightly above the general average. The differentials between the other classes are more similar in all the columns, but social class II is up from 84 to 92 per cent.

The results in the third column are quite new, and indeed come as a pleasant surprise because in the preliminary official figures, based on a one-per-cent sample of the census returns, the relatively high fertility of social class I did not show up. The percentage was only 90, and this must be attributed to a sampling fluctuation, especially as Class I is a much smaller group than the other categories. It may now be seen, however, that according to current experience the most successful persons occupationally, and therefore in general the most gifted with certain useful qualities, are no longer failing to keep pace with the population in their rate of child-bearing. This is heartening but, of course, does not mean that eugenists can relax. There are still many goals to aim at, of which the most evident are:

(1) that recent experience, which is evidently a new development, should be maintained permanently, and

(2) that social class I should continue to increase its fertility until it overtops that of unskilled workers.

The Registrar General's results for social class I are confirmed in his analysis by the somewhat different classification of socio-economic groups. The current fertility index for Group 3, which consists of higher administrative and professional workers, is now equal to the national level, and an interesting analysis of this group by age at cessation of full-time education shows that in it the most highly educated now have the largest families. This is another very heartening development, to which recent eugenic sample studies have pointed but which has not before been evident from British official population statistics.

When the families of all women aged forty-five to forty-nine at the Census are analysed simply according to the age when the husbands' full-time education ended, without further analysis by social class or group, there is a remarkable absence in the standardized results of any

difference between the family sizes of those where the father started work at age fifteen or over, whether he left school at fifteen or at nineteen or went to college. But there is a gap of 13 per cent between the fertility of this group as a whole and the higher fertility of the many who left school at fourteen or earlier. As the educational level of husbands and wives often differs, there seems little doubt that a classification according to the mother's age on ceasing full-time education would be more revealing, and it is hoped that a question may be asked at the 1961 Census that can throw some light on the matter.

POPULATION AND ETHICS

IT IS INDICATIVE of the true pressure of the world dilemma that Sir Russell Brain should refer so vigorously to the problems of population in his "Science, Philosphy and Religion", the twelfth Eddington Memorial Lecture, delivered in Cambridge on February 24th, 1959. The problem of numbers, of total co-existing human beings, now obtrudes itself so vigorously that even philosophers and theologians, must take note of biological reality and its implications. Yet it still takes men of Sir Russell Brain's calibre to drive home the living truth in these resistant fields.

His words are these:

> At this moment the world is facing a specific ethical challenge which has recently arisen as a result of the developments of science. Owing chiefly to advances in medicine the population of the world is increasing at an unprecedented rate. There are at present 2,500 million people alive, and at the present rate of increase the population of the world in another fifty years will be at least double that number. Yet of the last 1,000 million people born, between 150 and 200 million died before reaching one year of age and three-quarters of those who survived are undernourished and exposed to serious and incapacitating diseases. It is widely agreed that there is no hope of any immediate increase in the production of the world's resources, which incidentally includes much more than food, at a rate proportionate to the present increase in the population, and though further applications of the advances in medicine may render more people better able to support themselves, there will also be more survivors, who will have more children. Here is the struggle for existence before our own eyes. Man's reproductive impulses have been evolved as an adaptation to circumstances in which the odds against him were so great that only a small proportion of the human race survived to reproduce the next generation. Now all that has suddenly changed, as a result of scientific discoveries which were made and applied because they were good in themselves, and without any co-ordinated consideration of their probable consequences. Man has interfered with his own evolution so effectively that disaster awaits him unless he can show equal intelligence and co-operation to avert the results of his action, for unless birth control can be applied on the same scale as death control there is every likelihood that within a generation the world's population will outrun its means of subsistence. Many people, I imagine, will agree with that general statement. Beyond that there are differences of view, but surely all must recognize the need to re-examine the ethical questions involved, in the light of the relevant biological, physiological, psychological and economic facts.

DEMOGRAPHIC ACTIVITIES

PENDING THE ARRIVAL of more detailed information in the published Reports, we quote a summary provided by the Geneva Correspondent of *The Times* (25/2/59):

> PROBLEM OF RISING POPULATION
> CALL FOR CLOSER U.N. STUDY
>
> The prospect that the number of people in the world will increase during this year and next by about 100 million and that from now to the year 2000 the figure will rise from 2,800 million to between 4,900 million and 6,900 million has given special urgency to a recommendation of the United Nations Population Commission that the staff of demographers at headquarters in New York should be increased, and that wider studies and analyses should be undertaken. A disturbing fact is that the growth of population is greater in the less advanced than in the industrial countries.
>
> Among other recommendations the commission, which concluded its tenth session here at the weekend, suggested that a world conference on population should be convened by the United Nations in 1964. By then much more will be known. Russia has just taken her first census in twenty years, and the provisional results will be available in April. These should give some indication of, among other factors, the appalling losses, military and civilian, which Russia suffered in the war. India is to carry out a census in 1961, and many other countries will be doing the same.
>
> According to the commission the birth-rate on the mainland of China at present is probably

37 to 42 per 1,000 while the estimates of the death-rate vary from 17 to 21 per 1,000. Thus an annual natural increase of roughly 2 per cent is indicated. At this rate the population on the mainland of China increases by more than 10 million a year.

GRAVE RESPONSIBILITY

In its report to the Economic and Social Council of the United Nations the commission regards it as a grave responsibility to call attention to the unprecedented rapidity of the earth's current population increase and to the fact that this increase may be still more rapid in the near future.

The dearth of trained demographers is deplored. The less-developed countries have the fewest. At the United Nations headquarters there are only twelve demographers engaged in analysis of the statistics; three more are attached to the Economic Commission for Latin America, the Economic Commission for Asia and the Far East, and the social affairs office for the Near East. There are training centres in Santiago de Chile and at Chembur, near Bombay. The concensus of opinion in the commission (which was demoted from its original rank of a division) seemed to be that in view of the grave issues raised by population growth the service of the United Nations in this field ought to be strengthened.

We must all recognize that demographers—whether as counters of heads, as interpreters of twentieth century human swarming or as researchers who point the way to the formulation of policy—are valuable. Even more important is the making of policy itself, and this usually lies elsewhere. Policies there must be to control the swarming and to seek the good life for the many, and the really big need of to-day is that these policies should be well-founded.

Human swarming, it may be said, would present problems enough even if there were genetic uniformity throughout mankind. The intrinsic diversity of human kind in fact, however, complicates by a further biological dimension. We could wish that eugenic enlightenment had occurred in the time of our first Queen Elizabeth, when world population was around 400 million, rather than that it should begin to dawn when there are the 2,800 million of to-day.

MENTAL HEALTH RESEARCH FUND

OUR LAST ISSUE carried a Note on "Social Class and Mental Disorder", an aspect of the distribution of mental illness. Here may be described something of the total quantitative position.

"Any significant impact on the main problem of mental illness awaits the discovery and application of new knowledge in the various fields of mental science." It was the realization of that fundamental need which led in 1949 to the formation of the "Fund" whose Annual Report for 1958 has recently been issued.

The present figures for England and Wales alone, are thus described.

More than 208,000 beds are occupied by patients suffering from mental illness or mental deficiency—that is to say about 40 per cent of all the available beds in National Health Service hospitals. Sufferers outside hospital cannot be enumerated, "but about one-fifth of all the patients treated by general practitioners suffer some degree of psychiatric illness, and nearly 81,000 mental defectives are under supervision in the community. Attendances at psychiatric out-patient departments in 1957 totalled 948,800 and new patients numbered 148,563".

These enormous figures horrify—as indeed they should—yet the Annual Report of the Mental Health Research Fund goes on to say "with the increasing number, and rising average age, of the population, an increased number of patients can be expected".

At present we can only guess, but one day we should know, the relative importance of the genetic and of the environmental influences reflected in this vast mass of personal affliction. But what can be said at present with absolute certainty is that the genetic aspects of the problem have scarcely yet reached the public consciousness and indubitably not the public conscience. There lies the duty of those who would call themselves eugenists.

DEMOGRAPHIC FACTS

A NEW FEATURE in the present issue of the REVIEW is a column giving some facts about the British population and its growth (see page 131). This appears because it is believed that there is a demand for such information and also that there is a need for the figures to be presented as a background to more general discussion. Subject

to any views that may be expressed by readers, it is intended to continue to devote a column in each quarterly number of the REVIEW, to the statement of British demographic statistics, including particulars of mortality and migration but more especially of fertility, with a special emphasis on current developments.

Needless to say, all the information given is, and will be, available in the Reviews, Returns and Reports of the Registrars General for England and Wales and Scotland, and a debt of gratitude is owed to these officials and their staffs for their painstaking, accurate and very detailed work. To assemble the figures to be shown in the REVIEW would often, however, require reference to several of these sources and would be inconveniently laborious for many people; it is hoped that the relatively simple summaries now to be given will save them such a task.

OUR CONTRIBUTORS

Sir Macfarlane Burnet, Kt., F.R.S., M.D., Sc.D., F.R.C.P.

Sir Macfarlane Burnet's paper, "Biology and Medicine" appeared in the October 1957 number of THE EUGENICS REVIEW and a biographical note was published in the same issue.

R. W. Parnell, D.M.Oxon., M.R.C.P., London.

Dr. Parnell qualified from the London Hospital in 1936 and after hospital appointments served in the R.A.F. at home and overseas in Burma during World War II. In 1947 he joined the late Professor John Ryle's staff at the Institute of Social Medicine to run a pilot survey of student health needs at Oxford: here he drew attention to the relatively high incidence both of suicide and nervous breakdown among undergraduates. In 1948 he started research into the relationship between physique and various aspects of behaviour. For this he received the Hyde Award in 1952. Research along similar lines continued from 1952 to 1957 with the support of the Nuffield Foundation at the Warneford Hospital, Oxford, and since 1957 has come under the auspices of the Medical Research Council. Dr. Parnell's recent book *Behaviour and Physique* forms an introduction to practical and applied somatometry: it summarizes, too, the researches made by himself and his colleagues in the last twelve years.

Harry L. Shapiro, Ph.D.

Dr. Shapiro, President of the American Eugenics Society, was educated at Harvard University where he received his Ph.D. in 1926. He had begun field work earlier with a study of the descendants of the mutineers of the "Bounty". On leaving Harvard, he joined the staff of The American Museum of Natural History where he has been ever since and where he is now Chairman of the Department of Anthropology. He has also been Research Professor of Anthropology at the University of Hawaii, and is at present Professor of Anthropology at Columbia University. His field work has been most extensive in the Polynesian area of the Pacific. Dr. Shapiro is a Fellow of the National Academy of Sciences, in addition to other offices in professional societies. Some of his more recent publications include: *Race Mixture*, 1953; *Aspects of Culture*, 1956; *Man, Culture, and Society* (Ed.), 1956.

Professor P. E. Vernon, M.A., Ph.D., D.Sc.

Professor Vernon, who is a member of the Council of the Eugenics Society, has held the Chair of Educational Psychology, Institute of Education, University of London since 1949. His publications include *The Measurement of Abilities* (1940), *The Structure of Human Abilities* (1950), *Personality Tests and Assessments* (1953) and *Secondary School Selection* (1957).